

REMARKS

The Office Action dated March 12, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

In accordance with the foregoing, claims 1, 2, 4-7, 10, and 14-18 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claim 3 has been cancelled without prejudice or disclaimer. Claim 19 has been added corresponding to independent claim 16, but reciting means-plus-function recitations. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-19 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 102:

Claims 1-18 were rejected under 35 U.S.C. §102(e) as being anticipated by Stille et al. (U.S. Patent Application Publication No. 2002/0128028). The Office Action took the position that Stille discloses all the aspects of independent claims 1, 5, 15, and 16. The rejection is traversed and reconsideration is requested.

Independent claim 1, upon which claims 2 and 4 are dependent, recites a method for selecting a gateway network node for a mobile station served by a serving network node, in a system where at least two network operators share a radio network and the serving network node, the system comprising at least two gateway network nodes. The

method includes maintaining partner information about predefined partner networks, the partner information indicating that said network operators share the serving network node, and selecting a gateway network node for the mobile station on the basis of the partner information. The selecting a gateway network node for the mobile station on the basis of the partner information includes checking on the basis of the partner information whether a mobile station is in the home network, in a predefined partner network of the home network, or in a network outside them. The method includes selecting the gateway network node of the home network if the mobile station is in its home network, selecting the gateway network node of the home network if the mobile station is in a predefined partner network of the home network, and selecting the gateway network node of a visited network if the mobile station is outside its home network or predefined partner mobile networks of its home network.

Independent claim 5, upon which claims 6-14 are dependent, recites a mobile communications system including at least one mobile station, a subscriber register for maintaining subscriber information of the mobile station, and at least two networks to which the mobile station connects when the mobile station is within the area of the network, one of the networks being the home network of the mobile station, the networks comprising at least one gateway network node for interaction between packet switched mobile networks and external data networks. The system also includes at least one serving network node for serving the mobile station while the mobile station is in the area of the serving network node. The system is configured to maintain partner information

about networks that are predefined partner networks of the home network, the home network sharing at least one serving network node with each of the predefined partner networks. The system is further configured to check on the basis of the partner information whether a mobile station is in the home network, in a predefined partner network of the home network, or in a network outside them, select the gateway network node of the home network if the mobile station is in its home network, select the gateway network node of the home network if the mobile station is in a predefined partner network of the home network, and select the gateway network node of a visited network if the mobile station is outside its home network or predefined partner mobile networks of its home network.

Independent claim 15 recites a subscriber register for maintaining subscriber information in a system including at least one mobile station, at least two networks to which the mobile station connects when the mobile station is within the area of the network, one of the networks being the home network of the mobile station, the networks comprising at least one gateway network node for interaction between packet switched mobile networks and external data networks, and at least one serving network node for serving the mobile station while the mobile station is in the area of the serving network node. The subscriber register includes a first routine for maintaining partner information about networks that are predefined partner networks of the network, the partner network and the home network sharing at least one serving network node, a second routine for checking the partner information of the mobile station, and a third routine for indicating,

on the basis of the partner information, the gateway network node, to which the mobile station is to be connected, to the serving network node serving the mobile station. The subscriber register is configured to check on the basis of the partner information whether a mobile station is in the home network, in a predefined partner network of the home network, or in a network outside them, indicate the gateway network node of the home network if the mobile station is in its home network, indicate the gateway network node of the home network if the mobile station is in a predefined partner network of the home network, and indicate the gateway network node of a visited network if the mobile station is outside its home network or predefined partner mobile networks of its home network.

Independent claim 16, upon which claims 17-18 are dependent, recites a serving network node for relaying packet switched data in a system including at least one mobile station, a subscriber register for maintaining subscriber information of the mobile station, and at least two networks to which the mobile station connects when the mobile station is within the area of the network, one of the networks being the home network of the mobile station, the networks comprising at least one gateway network node for interaction between packet switched mobile networks and external data networks. The serving network node includes a first routine for checking partner information about networks that are predefined partner networks of the network, the partner network and the home network sharing the serving network node, and a second routine for selecting a gateway network node on the basis of the partner information. The serving network node is configured to check on the basis of the partner information whether a mobile station is in

the home network, in a predefined partner network of the home network, or in a network outside them, select the gateway network node of the home network if the mobile station is in its home network, select the gateway network node of the home network if the mobile station is in a predefined partner network of the home network, and select the gateway network node of a visited network if the mobile station is outside its home network or predefined partner mobile networks of its home network.

Independent claim 19 recites a serving network node for relaying packet switched data in a system comprising at least one mobile station and at least two networks, one of which is a home network of the at least one mobile station. The serving network node includes means for checking partner information about networks that are predefined partner networks, the partner network and the home network sharing a serving network node, and means for selecting a gateway network node on the basis of the partner information. The serving network node further includes means for checking on the basis of the partner information whether a mobile station is in the home network, in a predefined partner network of the home network, or in a network outside them, means for selecting the gateway network node of the home network if the mobile station is in its home network, means for selecting the gateway network node of the home network if the mobile station is in a predefined partner network of the home network, and means for selecting the gateway network node of a visited network if the mobile station is outside its home network or predefined partner mobile networks of its home network.

As will be discussed below, Stille fails to disclose or suggest the elements of any of the presently pending claims.

Stille generally describes a method and a device to determine which one of the owners of a shared radio network 6 that a visiting MT (Mobile Terminal), which MT 4, 5 is not subscribed to any of the owners of said shared radio network 6, is going to be connected to, by deriving information from the visiting MT 4, 5 concerning its identity. See abstract. Stille further provides a solution in which two MT's 4 and 5 are subscribed to operator X and operator Y, respectively. Operator X has an agreement with operator A, and operator Y has an agreement with operator B. According to Stille, MT 4 establishes a PDP context with the GGSN in the network of operator A, and MT 5 establishes a PDP context with the GGSN in the network of operator B. (See paragraph 0031)

According to Stille, one way to decrease the cost of the UMTS introduction is, by way of example, for two or more 3G operators to establish a shared 3G radio network. Some network elements are located in the home network of respective operator. Example of network elements in the home network is GGSN (Gateway GPRS Support Node) and HLR (Home Location Register). The GGSN is a gateway node that terminates specific protocols, and the HLR is a large data base containing information about all subscribers. The shared network must be able to pass outgoing packet sessions via the correct home network. (See paragraph [0020]).

Clearly, the description of Stille fails to teach or suggest that, if the mobile station is located in a predefined partner network of the home network of the mobile station, the GGSN to be selected for the mobile station is the GGSN of the home network of the mobile station. Specifically, Stille fails to teach or suggest, at least, “wherein the selecting a gateway network node for the mobile station on the basis of the partner information comprises checking on the basis of the partner information whether a mobile station is in the home network, in a predefined partner network of the home network, or in a network outside them; selecting the gateway network node of the home network if the mobile station is in its home network; selecting the gateway network node of the home network if the mobile station is in a predefined partner network of the home network; and selecting the gateway network node of a visited network if the mobile station is outside its home network or predefined partner mobile networks of its home network,” as recited in independent claim 1. Rather, in Stille, the GGSN of the visited network (AB) is selected.

Stille appears to disclose that if MT2 is subscribed to an operator that is one of the owners of the shared network, the SGSN accesses to information about which operator and MT2 is subscribed to and which home network MT2 shall use. (See paragraph 0027). However, in this instance, the operator has to be one of the owners of the shared network.

Stille merely provides a solution where two or more operators may establish a shared 3G network in order to save costs. (See paragraph 0020). In contrast, in accordance with an embodiment of the present invention, a mobile station may be

connected to its home GGSN even when roaming, for instance, in a foreign country. Stille fails to teach or suggest, at least, “checking on the basis of the partner information whether a mobile station is in the home network, in a predefined partner network of the home network, or in a network outside them,” as recited in independent claim 1.

In Stille, there are three scenarios regarding how the SGSN 9 acquires an APN 12, 13: Firstly, if the MT 2 does not provide any APN information to the SGSN 9, the SGSN 9 either chooses an NI from the subscription of the MT 2 or chooses a default NI. After that, an OI is added, making the APN 12, 13 complete. Secondly, if the MT2 provides an NI to the SGSN 9, the NI is verified for the user in question that has been identified previously via the IMSI. After that, if correctly verified, an OI is added thus making the APN 12, 13 complete. Thirdly, if the MT2 provides both an NI and an OI to the SGSN 9, the NI and OI are verified for the user in question that has been identified previously via the IMSI. If correctly verified, the APN 12, 13 is complete. (See paragraphs [0021]-[0026]). However, none of the scenarios of Stille teaches or suggests the checking and selection steps recited in independent claim 1. Accordingly, Stille fails to anticipate all the features recited in independent claim 1.

Because independent claims 5, 15, 16, and 19 includes similar claim features as those recited in independent claim 1, although of different scope, and because the Office Action refers to similar portions of the cited references to reject independent claims 5, 15, and 16, the arguments presented above supporting the patentability of independent claim

1 are incorporated herein to support the patentability of independent claims 5, 15, 16, and 19.

In view of the foregoing, it is respectfully requested that independent claims 1, 5, 15, 16, and 19 and related dependent claims be allowed.

CONCLUSION:

In view of the above, Applicant respectfully submits that the claimed invention recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicant further submits that the subject matter is more than sufficient to render the claimed invention unobvious to a person of skill in the art. Applicant therefore respectfully requests that each of claims 1-19 be found allowable and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Alicia M. Choi
Registration No. 46,621

Customer No. 32294

SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

AMC:dc

Enclosures: Petition for Extension of Time
Additional Claim Fee Transmittal
Check No. 17064